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WHAT IS CLAIMED IS:

1. A signal level detector comprising:

a first DC error amplifier operational to generate a control signal in response to a reference signal and a feedback signal; and

a first inverter operational to generate the feedback signal in response to the first DC error amplifier control signal, wherein the first DC error amplifier control signal operates to set a switching point for the first inverter.

2. The signal level detector according to claim 1, further comprising:

a second DC error amplifier; and

a second inverter, wherein the first and second DC error amplifiers and the first and second inverters together implement a differential comparator generating a desired output signal in response to a differential input signal determined via the switching point associated with the first inverter and a switching point associated with the second inverter.

3. A signal level detector comprising:

first means for generating a first control signal in response to a first reference signal and further in response to a first feedback signal; and

second means for controlling the first feedback signal in response to the first control signal, wherein the first control signal operates to set a switching point for the second means.

- 4. The signal level detector according to claim 3, wherein the first means for generating a first control signal comprises a DC error amplifier.
- 5. The signal level detector according to claim 3, wherein the second means for controlling the first feedback signal comprises a self-bias inverter.

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6. The signal level detector according to claim 3, further comprising:

third means for generating a second control signal in response to a second voltage reference signal and a second feedback signal; and

fourth means for controlling the second feedback signal in response to the second control signal, wherein the second control signal operates to set a switching point for the fourth means, and further wherein the first, second, third and fourth means together implement a differential comparator generating a desired output signal in response to a differential input signal voltage determined via the switching point associated with the second means and the switching point associated with the fourth means.

- 7. The signal level detector according to claim 6, wherein the third means for generating a second control signal comprises a DC error amplifier.
- 8. The signal level detector according to claim 6, wherein the fourth means for controlling the second feedback signal comprises a self-bias inverter.
- 9. A method of controlling a level detector, the method comprising the steps of: providing a DC error amplifier having a positive input, a negative input and operational to generate an output control signal;

driving the negative input via a desired reference voltage; and

driving the positive input via a self-biasing inverter feedback signal in response to the DC error amplifier output control signal to control a switching point associated with the self-biasing inverter. Docket No.: TI-36946

10. The method according to claim 9, further comprising the steps of:

providing a second DC error amplifier having a positive input, a negative input and operational to generate an output control signal;

driving the negative input of the second DC error amplifier via a second desired reference voltage; and

driving the positive input of the second DC error amplifier via a second selfbiasing inverter feedback signal in response to the second DC error amplifier output control signal to control a switching point associated with the second inverter.

11. The method according to claim 10, further comprising the steps of:

providing output logic operational to generate a desired output signal in response to a differential input signal generated via the first and second DC error amplifiers; and causing the desired output signal to change its logic state when the differential

input signal reaches a desired difference level.